

AUTOPILOT BASED STEERING AND MANEUVERING SYSTEM FOR BOATS

Abstract of the Disclosure

A boat featuring an autopilot-based steering and maneuvering system. The steering system uses a specially integrated autopilot that remains engaged unless the operator is actively commanding the boat to change course. For example, in a boat in which steering is performed using a joystick, course changes can be effected simply by moving (e.g., twisting) the joystick. That movement automatically disengages the autopilot, allowing the operator to achieve the course change. When the operator has completed the course change and released the joystick, a centering spring returns it to a neutral position and the autopilot automatically reengages. In the improved maneuvering system, the autopilot is used for controlling the direction of a waterjet boat during very low speed (e.g., less than 4 knots) maneuvers, such as docking. The autopilot controls the steering system, e.g., rotation of the waterjet nozzle, to maintain a desired bow direction, while the operator uses a manual control device to apply a sideward force (e.g., from a bowthruster) to move the boat sideways. Preferably, a stick control device (e.g., a multi-axis joy stick) is used, and movement of the stick in a selected direction (sideways, fore and aft, or a combination) causes the boat to move in a corresponding direction, but with the direction of the bow maintained by the autopilot.

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